LMA District Cover Sheet

Spring 2019 Levee Inspection Results

Reclamation District No. 1601 Twitchell

	Spring (March - May)	Summer ** (June - August)	Fall (September - November)	Winter ** (December - February)
† Overall LMA Rating (Fall Only)				
•	** Non-receipt of Sumn Reports may effect o			
† SPRING INSPECTIONS: Overall maintenance deficiencies are rated				ual maintenance
FALL INSPECTIONS: The overall maintena within the attached un			tion and maintenance de ended to be an indiction	
Comments				

Unit Cover Sheet

Spring 2019 Levee Inspection Results

Reclamation District No. 1601 Twitchell

Waterway	Bank	Unit Miles
Unit No. 01 Threemile Slough	Left	2.43

	Spring (March - May)	Summer (June - August)	(September - November) Fall	Winter (December - February)
Unit Maintenance Rating (Fall Only)				
Date of Inspection	3/28/2019 - 3/28/2019			
DWR Inspector	David Julian			
Accompanied By	Rick Carter RD1601			
	Wade Wylie DWR			

Summer & Winter Inspections

The Local Maintaining Agency (LMA) is responsible for summer and winter inspections. The LMA is required to submit a report regarding summer and winter inspections to the California Department of Water Resources (DWR).

DWR must be informed on the:

- a) completion of the inspection
- b) any changes other than the results of normal maintenance
- c) corrections to deficiencies noted in this report

If additional items are noted, further documentation of those items must also be submitted.

The LMA should submit this information to DWR using the LMA web application tool available at:

http://cdec.water.ca.gov/lma.html

If the LMA is unable to submit information on this webpage, please contact DWR for assistance.

The LMA should submit the information and any associated documentation by September 30 for summer inspections and March 31 for winter inspections.

Levee Inspection Report By Mile - Spring 2019

Reclamation District No. 1601 Twitchell

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Threemile Slough	Left	2.43	03/28/2019 03/28/2019	David Julian

LM Start	0.00	Rating **	Α	Issue No.		6	
LM End	0.00	Issue Type +	Ма	Location *			
Category	Earthen L	evee		GPS La	atitud	e/Longitude	
Calegory				Start		End	
Item	Operations & Maintenance				0		0
пеш	Manuals				0		0
DWR ID	DWR_RD1	601_01_s _ 201	3_6				
		Comn	nent Cod	le			
		Inspecto	or Comm	nent			
LMA has a	copy of th	ie O & M Man	uals on	file at the of	fice.		

No Photos

LM Start	0.00	Rating **	Α	Issue No.		7	
LM End	0.00	Issue Type +	Ma	Location *		N/A	
Category	Earthen L	evee		GPS L	atitud	de/Longitude	
Category				Start		End	
Item		cy Supplies &			0		0
item	Equipmer	nt			0		0
DWR ID	DWR_RD1	601_01_s _ 201	3_7				
		Comn	nent Cod	de			
		Inspecto	or Comm	nent			

LMA has adequate floodfight supplies on hand.

No Photos

							_
LM Start	0.00	Rating **	Α	Issue No.		8	
LM End	0.00	Issue Type +	Ma	Location *		N/A	
Category	Earthen L	evee		GPS La	atitud	e/Longitude	
Calegory				Start		End	
Item	Flood Pre	paredness &	Training		٥		0
пеш					٥		0
DWR ID	DWR_RD1	601_01_s _ 201	3_8				
		Comn	nent Cod	le			
							Т
		Inspecto	or Comm	nent			
LMA staff	is trained.						

No Photos

* Location	** Rating		+ Issue Type
LS : Land Side N/A : Not Applicable	A : Acceptable	N : Not Inspected/Rated	Ma : Maintenance Deficiency
WS : Water Side	M : Minimally Acceptable	C : Corrected	Ob : Design & System Obsolescence
CR : Crown	U : Unacceptable	A/W : Acceptable but Monitor & Maintain	En : Enforcement

Levee Inspection Report By Mile - Spring 2019

Reclamation District No. 1601 Twitchell

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Threemile Slough	Left	2.43	03/28/2019 03/28/2019	David Julian

LM Start	0.01	Rating **	М	Issue No.		13
LM End	0.41	Issue Type +	Ma	Location *		WS
Cotogony	Earthen L	evee		GPS La	atitud	e/Longitude
Category				Start		End
Item	Vegetatio	n		38.1221	32°	38.116375°
пеш				-121.6825	88 °	-121.682772°
DWR ID	DWR_RD1	601_01_s _ 201	9_13			
		Comn	nent Cod	le		
V1 : Contro	ol annual g	rass and wee	ds on th	e levee slop	oes a	and
easements	S.					
		Inspecto	or Comm	nent		

No Photos

LM Start	0.01	Rating **	Α	Issue No.		9
LM End	2.42	Issue Type +	Ма	Location *		LS
Catagony	Earthen L	GPS Latitude/Longitude				
Calegory	Category			Start		End
Itom	Vegetatio	n		38.1221	32 °	38.087735 °
ltem 5		-121.682590 ° -121.		-121.683872 °		
DWR ID	DWR_RD1	601_01_s _ 201	9_9			

Comment Code

V1 : Control annual grass and weeds on the levee slopes and easements.

Inspector Comment

LMA doing a good job maintaining annual vegetation

Photo 1 of 1: SP_2019_RD1601_237_9_20190329_00013.jpg



View looking upstream at annual vegetation on the landside slope (Spring 2019).

N: Not Inspected/Rated C: Corrected A/W: Acceptable but Monitor & Maintain + Issue Type

Ma : Maintenance Deficiency
Ob : Design & System Obsolescence
En : Enforcement

Levee Inspection Report By Mile - Spring 2019

Reclamation District No. 1601 Twitchell

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Threemile Slough	Left	2.43	03/28/2019 03/28/2019	David Julian

LM Start	0.11	Rating **	М	Issue No.		14
LM End	0.11	Issue Type +	En	Location *		
Category Supplemental			GPS Latitude/Longitude			
Calegory				Start		End
Item	DWR UC	IP Field Study		38.12071	6°	38.120716 °
пеш				-121.68279	6°	-121.682796 °
DWR ID	20950					

Comment Code

Inspector Comment

FS_ID:22043 DS_ID:20950 EP_NO: 11227

Repair Type: Non-Urgent Crossing Status: Found

UCIP Comments: Appears this crossing might be been recently modified--exposed section of pipe is protected with white paint. Need to contact owner to obtain records. Recommend clearing vegetation along the pipe alignment.

FIELD_STRUCT_DESC: 14-inch pipe (not 12-inch pipe as original description noted) through the levee, 4 feet below the crown. Siphon primer on waterside (WS) shoulder. 36-inch steel (not concrete as original description noted) pipe with shut-off valve inside at landside (LS) toe ditch. (12-inch pipe authorized under Automatic Board Order (ABO) issued as Permit No. 11227, 1975-Standard Oil of California; no permit found for 14-inch pipe) [Additional Reference(s): DWR Levee Logs, 2005]

FS Date: 5/14/2013

LM Start	0.11	Rating **	М	Issue No.	14 (cont)
LM End	0.11	Issue Type +	En	Location *	

Photo 1 of 3: UCIP_SP_2019_22043_37621.jpg



View of waterward side. 12-inch pipe to the right and 14-inch pipe to the

Photo 2 of 3: UCIP_SP_2019_22043_37622.jpg



View of landward side with canal located at toe.

Levee Inspection Report By Mile - Spring 2019

Reclamation District No. 1601 Twitchell

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Threemile Slough	Left	2.43	03/28/2019 03/28/2019	David Julian

LM Start	0.11	Rating **	М	Issue No.		14 (cont)
LM End	0.11	Issue Type +	En	Location *		
Category	Supplemental			GPS Latitude/Longitude		
Calegory				Start		End
Itom	DWR UC	IP Field Study		38.1207	16°	38.120716 °
item	Item		-121.6827	96°	-121.682796°	
DWR ID	20950					·

Comment Code

Inspector Comment

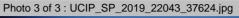
FS_ID:22043 DS_ID:20950 EP_NO: 11227

Repair Type: Non-Urgent Crossing Status: Found

UCIP Comments: Appears this crossing might be been recently modified--exposed section of pipe is protected with white paint. Need to contact owner to obtain records. Recommend clearing vegetation along the pipe alignment.

FIELD_STRUCT_DESC: 14-inch pipe (not 12-inch pipe as original description noted) through the levee, 4 feet below the crown. Siphon primer on waterside (WS) shoulder. 36-inch steel (not concrete as original description noted) pipe with shut-off valve inside at landside (LS) toe ditch. (12-inch pipe authorized under Automatic Board Order (ABO) issued as Permit No. 11227, 1975-Standard Oil of California; no permit found for 14-inch pipe) [Additional Reference(s): DWR Levee Logs, 2005]

FS Date: 5/14/2013





View of pipes located on landward side-dense vegetation along slope.

Levee Inspection Report By Mile - Spring 2019

Reclamation District No. 1601 Twitchell

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Threemile Slough	Left	2.43	03/28/2019 03/28/2019	David Julian

LM Start	0.11	Rating **	М	Issue No.	15	
LM End	0.11	Issue Type +	En	Location *		
Category			GPS Latitude/Longitude			
Calegory	gory			Start		End
Itom	DWR UCI	IP Field Study		38.12070	3°	38.120708°
Item			-121.682798	3°	-121.682798 °	
DWR ID	20953					·

Comment Code

Inspector Comment

FS_ID:42024 DS_ID:20953 EP_NO: N/A

Repair Type: Non-Urgent Crossing Status: Found

UCIP Comments: Appears this crossing might have been recently modified--O&M manual calls for 8 inch pipe not 12 inch pipe, need additional information--exposed section of pipe is protected with white paint. Need to contact owner to obtain records. Recommend clearing vegetation along the pipe alignment.

FIELD_STRUCT_DESC: 12-inch (not 8 inch listed in USACE) siphon through the levee approximately 3.2 feet below the crown. The existing 8-inch pipe listed in the O&M manual is no longer present, no permit was found authorizing crossing modifications. [Additional Reference(s): USACE Sacramento O&M Manual Unit No. 102, April 1959, (HLM 0.1), 8-inch pipe]

FS Date: 5/14/2013

LM Start	0.11	Rating **	М	Issue No.	15 (cont)
LM End	0.11	Issue Type +	En	Location *	

Photo 1 of 3: UCIP_SP_2019_42024_60809.jpg



View of waterward side. 12-inch pipe on the right (u/s) and 14-inch pipe on the left (d/s).

Photo 2 of 3: UCIP_SP_2019_42024_60810.jpg



View of pipes from landward shoulder. Levee is a gravel road.

Levee Inspection Report By Mile - Spring 2019

Reclamation District No. 1601 Twitchell

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Threemile Slough	Left	2.43	03/28/2019 03/28/2019	David Julian

LM Start	0.11	Rating **	М	Issue No.		15 (cont)
LM End	0.11	Issue Type +	En	Location *		
Category Supplemental			GPS Latitude/Longitude			
Calegory	У		Start		End	
Item	DWR UC	IP Field Study		38.12070	8 °	38.120708 °
пеш		=		-121.68279	8 °	-121.682798 °
DWR ID	20953					

Comment Code Inspector Comment

FS_ID:42024 DS_ID:20953 EP_NO: N/A

Repair Type: Non-Urgent Crossing Status: Found

UCIP Comments: Appears this crossing might have been recently modified--O&M manual calls for 8 inch pipe not 12 inch pipe, need additional information--exposed section of pipe is protected with white paint. Need to contact owner to obtain records. Recommend clearing vegetation along the pipe alignment.

FIELD_STRUCT_DESC: 12-inch (not 8 inch listed in USACE) siphon through the levee approximately 3.2 feet below the crown. The existing 8-inch pipe listed in the O&M manual is no longer present, no permit was found authorizing crossing modifications. [Additional Reference(s): USACE Sacramento O&M Manual Unit No. 102, April 1959, (HLM 0.1), 8-inch pipe]

FS Date: 5/14/2013

Photo 3 of 3: UCIP_SP_2019_42024_60812.jpg



View of pipes on landward side-dense vegetation along slope.

LM Start	0.62	Rating **	М	Issue No.		12	
LM End	0.85	Issue Type +	Ma	Location *	WS		
Category	Earthen L	evee		GPS La	atitud	e/Longitude	
Calegory		Start			End		
Item	Vegetatio	n		38.113560°		38.110155	0
пеш				-121.6819	60 °	-121.682140	0
DWR ID	DWR_RD1	601_01_s _ 201	9_12				
		Comn	nent Coc	le			

V1 : Control annual grass and weeds on the levee slopes and easements

Inspector Comment

No Photos

* Location	** Rating		+ Issue Type
LS: Land Side N/A: Not Applicable	A : Acceptable	N : Not Inspected/Rated	Ma : Maintenance Deficiency
WS : Water Side	M : Minimally Acceptable	C : Corrected	Ob : Design & System Obsolescence
CR : Crown	U : Unacceptable	A/W : Acceptable but Monitor & Maintain	En: Enforcement

Levee Inspection Report By Mile - Spring 2019

Reclamation District No. 1601 Twitchell

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Threemile Slough	Left	2.43	03/28/2019 03/28/2019	David Julian

LM Start	0.79	Rating **	М	Issue No.		16	
LM End	0.79	Issue Type +	En	Location *			
Category	Supplemental				GPS Latitude/Longitude		
Calegory			Start		End		
Item	DWR UC	IP Field Study		38.111078	3°	38.111078 °	
пеш				-121.68201 ²	0	-121.682011 °	
DWR ID	20958				·		

Comment Code

Inspector Comment

FS_ID:50031 DS_ID:20958 EP_NO: N/A

Repair Type: Non-Urgent Crossing Status: Not Found

UCIP Comments: 8/02/2016 LMA representative, Rick Carter, was notified on 7/5/2016 by Underground Service Alert that no pipe line was idenfied within RD1601 levees. UCIP will need to coordinate with PG&E directly to determine fate of crossing. This crossing was downgraded from Urgent to Non-Urgent due to the crossing not in service. (DWR UCIP - omagana)7/05/2016 No markers present. According to LMA representative, Rick Carter, this crossing is an abandoned PG&E 450 low pressure line. LMA representative is coordinating with Underground Service Alert (USA) to confirm location of crossing. Once USA provides location Rick Carter will provide photos of location and overview photos of crossing to Olivia M (DWR UCIP). Pending Action - Need to coordinate with PG&E to determine details about the year and method of pipe abandonment. (DWR UCIP - omagana)5/14/2013 no markers or signs available--will need to coordinate with owner to determine if crossing is still being used or abandoned. (DWR UCIP - omagana) FIELD_STRUCT_DESC: 12-inch steel 450 low pressure gas line through the levee at an unknown depth. Facility on landside (LS)-not found in 2013. USACE Drawing indicates gas line and facility were relocated. (LMA representative believes PG&E abandoned line). [Additional Reference(s): DWR Levee Log, 2005. USACE Sacramento O&M Manual Unit No. 102, April 1959, Drawing No. 50-4-2958]. FS Date: 7/5/2016

No Photos

N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain + Issue Type

Ma : Maintenance Deficiency

Ob : Design & System Obsolescence
En : Enforcement

Levee Inspection Report By Mile - Spring 2019

Reclamation District No. 1601 Twitchell

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Threemile Slough	Left	2.43	03/28/2019 03/28/2019	David Julian

LM Start	0.79	Rating **	М	Issue No.		17	
LM End	0.79	Issue Type +	En	Location *			
Category Supplemental				GPS Latitude/Longitude			
Calegory				Start		End	
Item	DWR UC	IP Field Study		38.11107	B°	38.111078°	
пеш				-121.68201	1°	-121.682011 °	
DWR ID	24069						

Comment Code

Inspector Comment

FS_ID:52959 DS_ID:24069 EP_NO: N/A

Repair Type: Non-Urgent Crossing Status: Indicator Found

UCIP Comments: 03/08/2018 No supporting documentation was received for this crossing by KSN Inc. to determine the fate of this encroachment. Need to contact KSN Inc. (Dcarr@KSNinc.com) to obtain documentation for the removal or abandonment of

encroachment. (O. Magana - DWR UCIP)
03/19/2009 Unable to determine if line crosses levee. Need to contact

owner to determine if crossing goes through levee. Also need to determine permit authorizing work on landward side. (O. Magana - DWR UCIP)

FIELD_STRUCT_DESC: Steel stand pipe with PVC pipe inside located on landside (LS) shoulder. Rip rap located on waterside (WS) slope. Unable to determine if crossing goes through levee. Appears to be monitoring gas well.

FS Date: 3/19/2009

 LM Start
 0.79
 Rating **
 M
 Issue No.
 17 (cont)

 LM End
 0.79
 Issue Type +
 En
 Location *

Photo 1 of 3: UCIP_SP_2019_52959_71862.jpg



View of landward side--standpipe located on slope.

Photo 2 of 3: UCIP_SP_2019_52959_71860.jpg



View of landward side--dense vegetation along slope.

Levee Inspection Report By Mile - Spring 2019

Reclamation District No. 1601 Twitchell

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Threemile Slough	Left	2.43	03/28/2019 03/28/2019	David Julian

LM Start	0.79	Rating **	М	Issue No.		17 (cont)		
LM End	0.79	Issue Type +	En	Location *				
Category	Supplemental					GPS Latitude/Longitude		
Calegory						End		
Item	DWR UC	IP Field Study		38.11107	'8°	38.111078°		
пеш				-121.68201	1 °	-121.682011 °		
DWR ID	24069							

Comment Code

Inspector Comment

FS_ID:52959 DS_ID:24069 EP_NO: N/A

Repair Type: Non-Urgent Crossing Status: Indicator Found

UCIP Comments: 03/08/2018 No supporting documentation was received for this crossing by KSN Inc. to determine the fate of this encroachment. Need to contact KSN Inc. (Dcarr@KSNinc.com) to obtain documentation for the removal or abandonment of

encroachment. (O. Magana - DWR UCIP)

03/19/2009 Unable to determine if line crosses levee. Need to contact owner to determine if crossing goes through levee. Also need to determine permit authorizing work on landward side. (O. Magana -DWR UCIP)

FIELD_STRUCT_DESC: Steel stand pipe with PVC pipe inside located on landside (LS) shoulder. Rip rap located on waterside (WS) slope. Unable to determine if crossing goes through levee. Appears to be monitoring gas well. FS Date: 3/19/2009

Photo 3 of 3: UCIP_SP_2019_52959_71861.jpg



PVC pipe inside standpipe located on landward side.

LM Start	1.00	Rating **	М	Issue No.		11
LM End	1.17	Issue Type +	Ма	Location *		WS
Category	Earthen L	GPS Latitude/Longitude			e/Longitude	
Category				Start		End
Item	Vegetatio	n		38.1080	97 °	38.105757 °
пеш				-121.6828	07°	-121.683545 °
DWR ID DWR_RD1601_01_s _ 2019_11						
Comment Code						

V1 : Control annual grass and weeds on the levee slopes and easements

Inspector Comment

Photo 1 of 1: SP_2019_RD1601_237_11_20190329_00015.jpg



View looking upstream at horsetail vegetation on the waterside shoulder (Spring 2019).

Page 9 of 11

N: Not Inspected/Rated C: Corrected A/W: Acceptable but Monitor & Maintain Issue Type Ma: Maintenance Deficiency

Ob: Design & System Obsolescence En: Enforcement

Levee Inspection Report By Mile - Spring 2019

Reclamation District No. 1601 Twitchell

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Threemile Slough	Left	2.43	03/28/2019 03/28/2019	David Julian

LM Start	1.17 Rating ** A		Α	Issue No.		10							
LM End	2.42	Issue Type +	Ma	Location *	WS								
Category Earthen Levee				GPS La	le/Longitude								
Calegory	Salegory					End							
Item	Vegetatio	n		38.1057	57°	38.087735 °							
пеш				-121.6835	45 °	-121.683872 °							
DWR ID	601_01_s _ 201												
Comment Code													

V1 : Control annual grass and weeds on the levee slopes and easements.

Inspector Comment

LMA doing a good job maintaining annual vegetation.

Photo 1 of 1 : SP_2019_RD1601_237_10_20190329_00014.jpg



View looking upstream at the annual vegetation on the waterside slope (Spring 2019).

LM Start	2.05	Rating **	M	Issue No.		18	
LM End	2.05	Issue Type +	En	Location *			
Category				GPS Latitude/Longitude			
Calegory						End	
Item	DWR UCIP Field Study				07°	38.093107 °	0
iteiii			-121.6845	25 °	-121.684525 °	0	
DWR ID	D 20951						

Inspector Comment

Comment Code

FS_ID:19545 DS_ID:20951 EP_NO: 2909A

Repair Type: Non-Urgent Crossing Status: Found

Crossing Status: Found
UCIP Comments: Appears this crossing might be been recently
modified--exposed section of pipe is protected with white paint. Need to
contact owner to obtain records. Recommend clearing vegetation along
the pipe alignment. Dense vegetation on landward slope limits the
inspector's visibility to identify signs of leaks along levee slope.
FIELD_STRUCT_DESC: 8-inch siphon irrigation pipe through levee, 2.4
feet below crown. Cutoff wall around pipe at center of levee. Siphon
breaker on apex of pipe on landside (LS) shoulder. Hand primer pump
on LS slope. (8-inch pipe authorized under Permit No. 2909A, 1960-J.
Souza). [Additional Reference(s): DWR Levee Logs, 2005]
FS Date: 5/14/2013

Photo 1 of 3: UCIP_SP_2019_19545_33173.jpg



View of levee crown looking downstream at crossing.

N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain + Issue Type

Ma : Maintenance Deficiency

Ob : Design & System Obsolescence
En : Enforcement

Levee Inspection Report By Mile - Spring 2019

Reclamation District No. 1601 Twitchell

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Threemile Slough	Left	2.43	03/28/2019 03/28/2019	David Julian

LM Start	2.05	Rating **	М	Issue No.		18 (cont)		
LM End	2.05	Issue Type +	En	Location *				
Category	Cotogon Supplemental				GPS Latitude/Longitude			
Calegory			Start		End			
Item	DWR UC	IP Field Study		38.09310	7°	38.093107°		
пеш					5°	-121.684525 °		
DWR ID	20951							

Comment Code

Inspector Comment

FS_ID:19545 DS_ID:20951 EP_NO: 2909A

Repair Type: Non-Urgent Crossing Status: Found

UCIP Comments: Appears this crossing might be been recently modified--exposed section of pipe is protected with white paint. Need to contact owner to obtain records. Recommend clearing vegetation along the pipe alignment. Dense vegetation on landward slope limits the inspector's visibility to identify signs of leaks along levee slope. FIELD_STRUCT_DESC: 8-inch siphon irrigation pipe through levee, 2.4 feet below crown. Cutoff wall around pipe at center of levee. Siphon breaker on apex of pipe on landside (LS) shoulder. Hand primer pump on LS slope. (8-inch pipe authorized under Permit No. 2909A, 1960-J. Souza). [Additional Reference(s): DWR Levee Logs, 2005] FS Date: 5/14/2013

LM Start	2.05	Rating **	М	Issue No.	18 (cont)
LM End	2.05	Issue Type +	En	Location *	

Photo 2 of 3 : UCIP_SP_2019_19545_33174.jpg



View of levee crown looking upstream at crossing.

Photo 3 of 3: UCIP_SP_2019_19545_33171.jpg



View of crossing on waterward slope. Rip rap present at waterward toe.